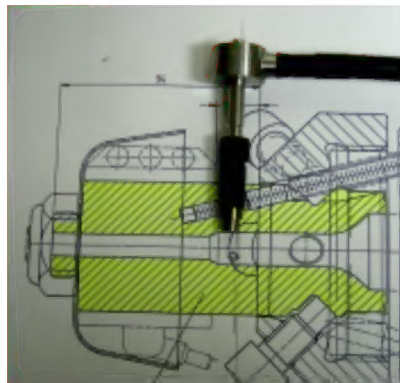


Operating Instructions

Nozzle Temperature Sensor

NTS 2 - IR - A2



Fast infrared temperature sensor for measuring the melt temperature in the nozzle of an injection molding machine

Operating instruction

Nozzle Temperature Sensor

NTS 2 - IR - A2



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Installation of the sensor

The FOS NTS 2 - IR - A2 sensor is a fast infrared thermometer for measuring the melt temperature in the nozzle of an injection moulding machine. The measuring of the infrared radiation of the melt is the only method to detect the exact temperature in milliseconds so that too high or too low temperatures of the melt can effectively be avoided.

Installation of the sensor:

1. Mount the sensor into the measuring bore hole. **Please make shure that the sensor and the amplifier show identical serial numbers !**
2. Connect a 24 V DC power supply to the amplifier and the green LED will start shining.
3. The sensor is now ready for operation !

Zero and Span Adjustment:

Attention: The factory calibration of the sensor was done by means of a grey infrared radiator. The actual sensor-IR-output and the sensor head temperature output signal (TC = Thermocouple) can be found on the amplifier label.

Start condition:

Make shure that the sensor (IR-output) shows approximately room temperature when the sensor head is cold. If not use the zero adjustment screw. (Try to get 25 - 30 °C read out = 625 - 750 mV).

Nozzle filled with plastic melt, nozzle at operating temperature.

Now the IR signal should show the same temperature as the nozzle body. The difference of the readings can be ajusted by means of the span screw at the backpanel of the amplifier.

Now the sensor is ready for operation !!

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Technical Data:

Principal of function:	A fast infrared thermometer for measuring the melt temperature in the nozzle of an injection moulding machine.
Supply Voltage:	24 VDC (+/- 10%) (max. 300 mA)
Output signals:	
Infrared thermometer:	25 mV / °C
Conventional thermometer:	10 mV / °C
Linearity:	better than 1% FSO
Precision:	better than 1% FSO
Temperature range:	50 °C - 400 °C
Response time:	typ. 15 ms

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Connecting cable

Material PVC, color grey, Ø 7,4 mm, 6-wires twisted pairs with overall screen

Pin connecting list of the Weidmüller plug for the Infrared nozzle thermometer
Type NTS 2 -IR -A2

	Pin	Color	Signal
[1]	Temp. TC	---- Green -----	Temperature output: 10 mV/°C
[2]	Temp. IR	---- White -----	IR-Temperature output: 25 mV/°C
[3]	Temp. IR	-- Brown/Yellow -	GND to Pin [1] u. [2]
[4]	Reserved	-----	NC
[5]	Reserved	-----	NC
[6]	Reserved	-----	NC
[7]	Reserved	-----	NC
[8]	Reserved	-----	NC
[9]	Reserved	-----	NC
[10]	+ 24 VDC	---- Pink -----	+ 24 VDC
[11]	GND	---- Grey -----	GND
[12]	PE	-- Green-Yellow -	PE

Operating instruction

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Connecting scheme

Anschlußbelegung Connecting scheme

IR-Temperatur-Sensor MTS 408 mit Netzgerät NG SPS 24
IR-Temperature-Sensor MTS 408 with Power supply NG SPS 24

Meßverstärker / Amplifier MTS 408:

Steckerleiste / Header:
Klemmleiste steckbar / Plug in terminal blocks :

Weidmüller SL 5.08/12/90B 3.2 SN OR
Weidmüller BLZ 5.08/12B SN OR

Netzgerät / Power supply NG SPS 24:

Steckerleiste / Header:
Klemmleiste steckbar / Plug in terminal blocks:

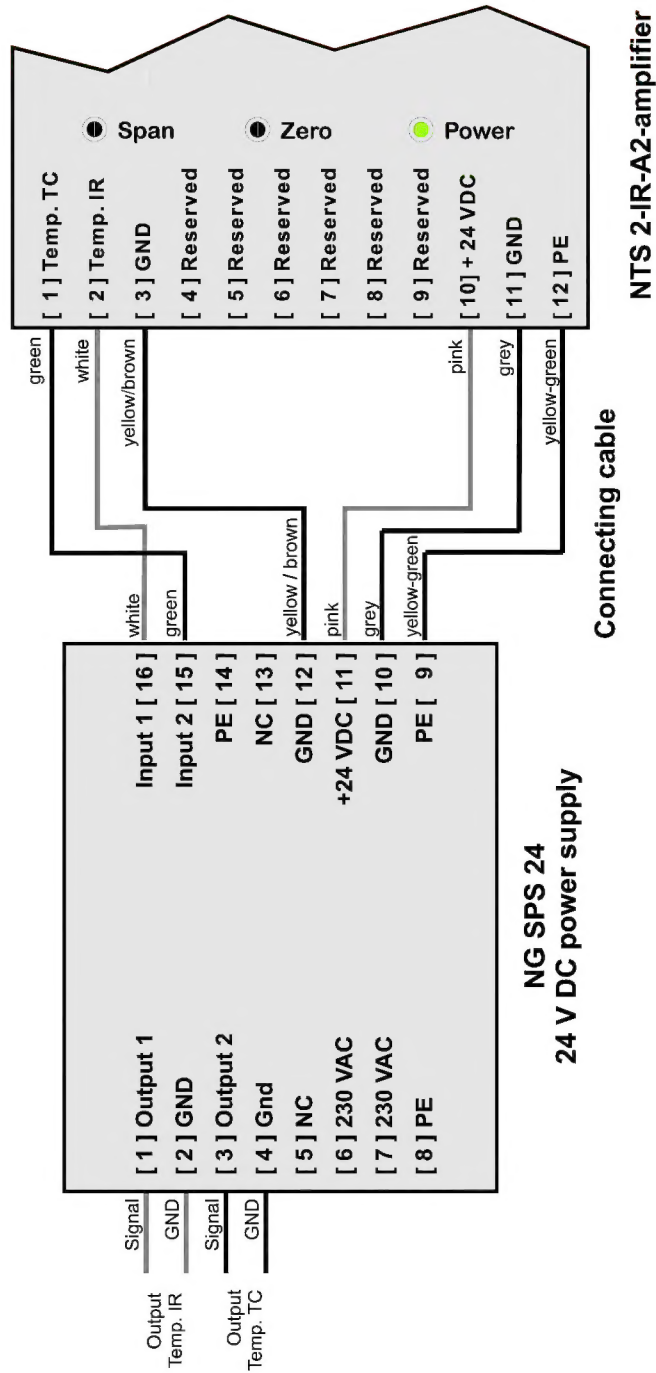
Weidmüller SL 5.08/8/90B 3.2 SN OR
Weidmüller BLZ 5.08/8B SN OR

Anschlußkabel / Connecting cable:

Material PVC, Farbe grau, Ø 7,4 mm, 6-adrig paarig verseilt mit Gesamtschirm
Material PVC, colour grey, Ø 7,4 mm, 6 wires twisted pairs with overall screen

Meßverstärker / Amplifier MTS 408:
Netzgerät / Power supply NG SPS 24:

Klemmleiste steckbar / Plug in terminal blocks :
Klemmleiste steckbar / Plug in terminal blocks:
Weidmüller BLZ 5.08/12B SN OR
Weidmüller BLZ 5.08/8B SN OR



Operating instruction

Nozzle Temperature Sensor

NTS 2 - IR - A2



Connecting scheme for IR-Temperatur-Sensor NTS 2 - IR - A2

Amplifier NTS 2 - IR - A2: 12-pin inline connector: Weidmüller SL 5.08/12/90B 3.2 SN OR

Standard cabell for Infrared thermometer NTS 2 - IR -A2: Material PVC, color grey, Ø 7,4 mm, 6-wires twisted pairs with overall screen

Plug with cable on the sensor side: Weidmüller BLZ 5.08/12B SN OR

